

VALINE PREPARATION OF *OXYCOCCUS MACROCARPUS* LEAVES EXTRACT – A PROMISING HEPATOPROTECTIVE AGENT

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Introduction. The liver performs a fundamental role in the regulation of diverse physiological processes. Despite enormous advances in modern medicine, there are no completely effective drugs that stimulate hepatic function, offer complete protection to the organ, or aid in regenerating hepatic cells. Thus, it is necessary to identify alternative plant-origin pharmaceuticals for the treatment of hepatic diseases, with the aim of these agents being more effective and less toxic.

The aim of the study was to study the chemical composition and hepatoprotective activity of the *O. macrocarpus* leaves extract and its valine preparation.

Methods of research. *O. macrocarpus* leaves were harvested in August 2020 in Kyiv region. The dried cranberry leaves was macerated 3 times with ethanol:water mixture (1:1, v/v) overnight at room temperature and half of it was evaporated to the dry extract (E1). To the other part (500 ml) 10.5 g of valine (E2) were added, kept overnight and evaporated to dryness (E2). Analysis of phenolic compounds was carried out by HPLC [1]. The study of the hepatoprotective activity of the cranberry leaves extracts was carried out on the model of acute tetrachloromethane hepatitis [2].

Main results. 19 phenolic substances were identified in the large cranberry leaves extracts and their content were determined by HPLC method. There were 8 flavonoids (flavones and flavonols), 4 anthocyanins, 2 catechins and 3 hydroxycinnamic acids. The taking of the studied large cranberry leaves extracts and the referent drug “Silibor” in experimental hepatitis under the conditions of a therapeutic and preventive regimen was accompanied by a noticeable decrease in pathological manifestations and led to a significant decrease in the studied indicators relative to the values in the control pathology group.

Conclusions. The chemical composition and hepatoprotective activity of the *O. macrocarpus* leaves extract and its valine preparation were studied. The therapeutic and prophylactic consumption of the large cranberry leaves extracts led to a decrease in the intensity of the lipid peroxidation process compared to the control pathology group in the experiment of acute toxic damage to the liver by tetrachloromethane on rats.

References

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